

**Amendments to Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

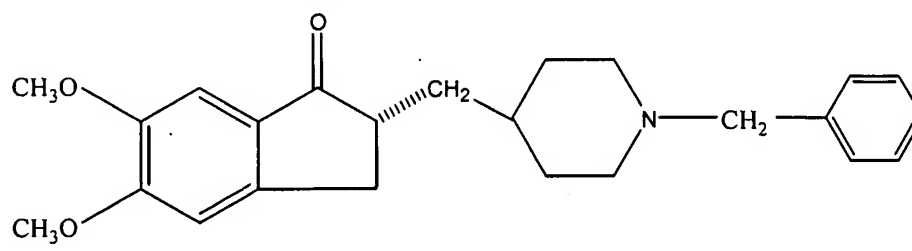
**Listing of Claims:**

1-24. (Canceled)

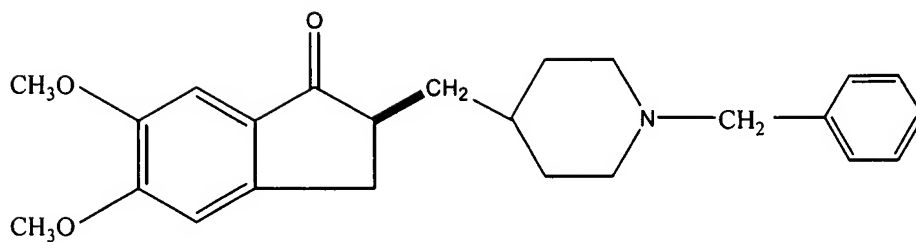
25. (Currently Amended) A method for treating substance abuse in a patient in need thereof comprising administering a therapeutically effective amount of donepezil or a pharmaceutically acceptable salt thereof, wherein the substance abuse is selected from a dependence on 1) alcohol, 2) addictive substances selected from the group consisting of cocaine, marijuana, an amphetamine, a phencyclidine, a benzodiazepine, and a combination of two or more thereof, 3) addictive substances selected from the group consisting of an anxiolytic drug, a hypnotic drug, a psychedelic agent, a hallucinogen, and a combination of two or more thereof or 4) club drugs selected from the group consisting of GHB, ketamine, ecstasy, methamphetamine, LSD, and a combination of two or more thereof.

26. (Previously presented) The method of claim 25, wherein donepezil or the pharmaceutically acceptable salt thereof is donepezil hydrochloride.

27. (Previously Presented) The method of claim 25, wherein donepezil is in the form of a stereoisomer of Formula (IV) or a pharmaceutically acceptable salt thereof:



28. (Previously Presented) The method of claim 25, wherein donepezil is in the form of a stereoisomer of Formula (VII) or a pharmaceutically acceptable salt thereof:



29. (Previously Presented) The method of claim 25, wherein the therapeutically effective amount is from 0.1 mg to 100 mg.

30. (Previously Presented) The method of claim 25, wherein the therapeutically effective amount is from 1 mg to 100 mg.

31. (Previously Presented) The method of claim 25, wherein the therapeutically effective amount is from 5 mg to 10 mg.

32. (Previously Presented) The method of claim 25, wherein donepezil or the pharmaceutically acceptable salt thereof is orally administered.

33. (Previously Presented) The method of claim 25, wherein donepezil or the pharmaceutically acceptable salt thereof is orally administered in the form of a tablet.

34. (Previously Presented) The method of claim 25, wherein donepezil or the pharmaceutically acceptable salt thereof is topically administered.

35. (Previously Presented) The method of claim 25, wherein donepezil or the pharmaceutically acceptable salt thereof is topically administered in the form of a transdermal patch.

36. (Previously Presented) The method of claim 25, wherein the substance abuse is a dependence on alcohol.

37. (Currently Amended) The method of claim 25, wherein the substance abuse is a dependence on ~~an opioid~~, cocaine, marijuana, an amphetamine, a phencyclidine, a benzodiazepine, or a combination of two or more thereof.

38. (Previously Presented) The method of claim 25, wherein the substance abuse is a dependence on an anxiolytic drug, a hypnotic drug, a psychedelic agent, a hallucinogen, or a combination of two or more thereof.

39. (Previously Presented) The method of claim 25, wherein the substance abuse is a dependence on GHB, ketamine, ecstasy, methamphetamine, LSD, or a combination of two or more thereof.

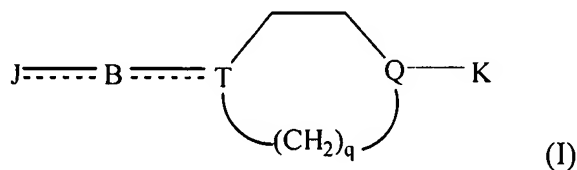
40. (Currently Amended) A method for treating one or more withdrawal symptoms associated with cessation from the use of an addictive substance in a patient in need thereof comprising administering a therapeutically effective amount of donepezil or a pharmaceutically acceptable salt thereof and wherein the substance abuse is selected from a dependence on 1) alcohol, 2) addictive substances selected from the group consisting of cocaine, marijuana, an amphetamine, a phencyclidine, a benzodiazepine, and a combination of two or more thereof, 3) addictive substances selected from the group consisting of an anxiolytic drug, a hypnotic drug, a psychedelic agent, a hallucinogen, and a combination of two or more thereof or 4) club drugs selected from the group consisting of GHB, ketamine, ecstasy, methamphetamine, LSD, and a combination of two or more thereof.

41. (Previously Presented) The method of claim 40, wherein the one or more withdrawal symptoms are a craving for the addictive substance, irritability, insomnia, impatience, restlessness, difficulty concentrating, increased appetite, decreased heart rate, or a combination of two or more thereof.

42. (Currently amended) A method for decreasing the rate of relapse in a patient who had been previously addicted to an addictive substance comprising administering a therapeutically effective amount of donepezil or a pharmaceutically acceptable salt thereof, wherein the substance abuse is selected from a dependence on 1) alcohol, 2) addictive substances selected from the group consisting of cocaine, marijuana, an amphetamine, a phencyclidine, a benzodiazepine, and a combination of two or more thereof, 3) addictive substances selected from the group consisting of an anxiolytic drug, a hypnotic drug, a psychedelic agent, a hallucinogen,

and a combination of two or more thereof or 4) club drugs selected from the group consisting of GHB, ketamine, ecstasy, methamphetamine, LSD, and a combination of two or more thereof.

43. (Currently amended) A method for treating substance abuse in a patient in need thereof comprising administering a therapeutically effective amount of a compound of Formula (I) or a pharmaceutically acceptable salt thereof:



or a stereoisomer thereof;

wherein J is

- (a) a substituted or unsubstituted group selected from the group consisting of (1) phenyl, (2) pyridyl, (3) pyrazyl, (4) quinolyl, (5) cyclohexyl, (6) quinoxalyl, and (7) furyl;
- (b) a monovalent or divalent group, in which the phenyl may have one or more substituents selected from (1) indanyl, (2) indanonyl, (3) indenyl, (4) indenonyl, (5) indanedionyl, (6) tetralonyl, (7) benzosuberonyl, (8) indanolyl, and (9)  $\text{C}_6\text{H}_5\text{-CO-CH(CH}_3\text{)-}$ ;
- (c) a monovalent group derived from a cyclic amide compound;
- (d) a lower alkyl group; or
- (e) a group of  $\text{R}^{21}\text{-CH=CH-}$ , in which  $\text{R}^{21}$  is hydrogen or a lower alkoxy carbonyl group;

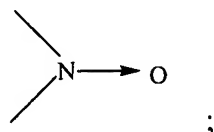
B is  $\text{-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-CO-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-NR}^4\text{-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-CO-NR}^5\text{-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-CH=CH-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-OCOO-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-OOC-NH-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-NH-CO-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-CH}_2\text{-CO-NH-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-(CH}_2\text{)}_2\text{-NH-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{-CH(OH)-(CHR}^{22}\text{)}_r\text{-}$ ,  $\text{=(CH-CH=CH)}_b\text{-}$ ,  $\text{=CH-(CH}_2\text{)}_c\text{-}$ ,  $\text{=(CH-CH)}_d\text{=}$ ,  $\text{-CO-CH=CH-CH}_2\text{-}$ ,  $\text{-CO-CH}_2\text{-CH(OH)-CH}_2\text{-}$ ,  $\text{-CH(CH}_3\text{)-CO-NH-CH}_2\text{-}$ ,  $\text{-CH=CH=CO-NH-(CH}_2\text{)}_2\text{-}$ ,  $\text{-NH-}$ ,  $\text{-O-}$ ,  $\text{-S-}$ , a dialkylaminoalkyl-carbonyl or a lower alkoxy carbonyl;

wherein  $\text{R}^4$  is hydrogen, lower alkyl, acyl, lower alkylsulfonyl, phenyl, substituted phenyl, benzyl, or substituted benzyl;  $\text{R}^5$  is hydrogen, lower alkyl or phenyl; r is zero or an

integer of 1 to 10;  $R^{22}$  is hydrogen or methyl so that one alkylene group may have no methyl branch or one or more methyl branches; b is an integer of 1 to 3; c is zero or an integer of 1 to 9; d is zero or an integer of 1 to 5;

T is nitrogen or carbon;

Q is nitrogen, carbon or



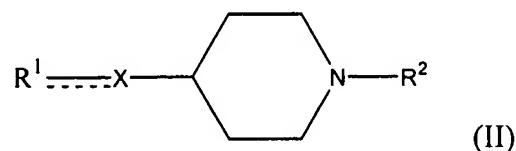
q is an integer of 1 to 3;

K is hydrogen, phenyl, substituted phenyl, arylalkyl in which the phenyl may have a substituent, cinnamyl, a lower alkyl, pyridylmethyl, cycloalkylalkyl, adamantanemethyl, furylmethyl, cycloalkyl, lower alkoxy carbonyl or an acyl; and

----- is a single bond or a double bond,

and wherein the substance abuse is selected from a dependence on 1) alcohol, 2) addictive substances selected from the group consisting of cocaine, marijuana, an amphetamine, a phencyclidine, a benzodiazepine, and a combination of two or more thereof, 3) addictive substances selected from the group consisting of an anxiolytic drug, a hypnotic drug, a psychedelic agent, a hallucinogen, and a combination of two or more thereof or 4) club drugs selected from the group consisting of GHB, ketamine, ecstasy, methamphetamine, LSD, and a combination of two or more thereof.

44. (Previously presented) The method of claim 43, wherein the compound of Formula (I) is a compound of Formula (II) or a pharmaceutically acceptable salt thereof:



or a stereoisomer thereof;

wherein  $R^1$  is a (1) substituted or unsubstituted phenyl group; (2) a substituted or unsubstituted pyridyl group; (3) a substituted or unsubstituted pyrazyl group; (4) a substituted or

unsubstituted quinolyl group; (5) a substituted or unsubstituted indanyl group; (6) a substituted or unsubstituted cyclohexyl group; (7) a substituted or unsubstituted quinoxalyl group; (8) a substituted or unsubstituted furyl group; (9) a monovalent or divalent group derived from an indanone having a substituted or unsubstituted phenyl ring; (10) a monovalent group derived from a cyclic amide compound; (11) a lower alkyl group; or (12) a group of the formula  $R^3\text{-CH=C-}$ , where  $R^3$  is a hydrogen atom or a lower alkoxy carbonyl group;

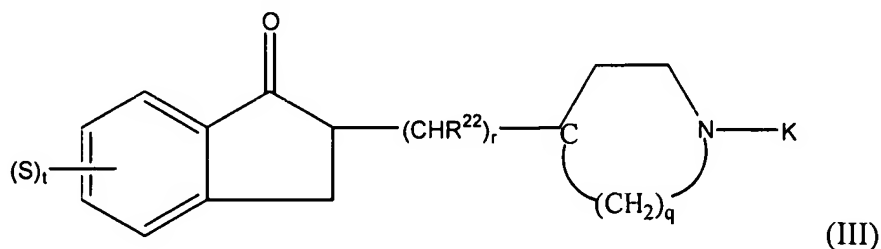
X is  $-(\text{CH}_2)_n-$ ,  $-\text{C(O)}-(\text{CH}_2)_n-$ ,  $-\text{N(R}^4\text{)}-(\text{CH}_2)_n-$ ,  $-\text{C(O)}-\text{N(R}^5\text{)}-(\text{CH}_2)_n-$ ,  $-\text{CH=CH}-(\text{CH}_2)_n-$ ,  $-\text{O-C(O)-O}-(\text{CH}_2)_n-$ ,  $-\text{O-C(O)-NH}-(\text{CH}_2)_n-$ ,  $-\text{CH=CH-CH=CO-}$ ,  $-\text{NH-C(O)}-(\text{CH}_2)_n-$ ,  $-\text{CH}_2-\text{C(O)-NH}-(\text{CH}_2)_n-$ ,  $-(\text{CH}_2)_2-\text{C(O)-NH}-(\text{CH}_2)_n-$ ,  $-\text{CH(OH)}-(\text{CH}_2)_n-$ ,  $-\text{C(O)-CH=CH-CH}_2-$ ,  $-\text{C(O)-CH}_2-\text{CH(OH)-CH}_2-$ ,  $-\text{CH(CH}_3\text{)-C(O)-NH-CH}_2-$ ,  $-\text{CH=CH-C(O)-NH}-(\text{CH}_2)_2-$ , a dialkylaminoalkylcarbonyl group, a lower alkoxy carbonyl group;

where n is an integer of 0 to 6;  $R^4$  is a hydrogen atom, a lower alkyl group, an acyl group, a lower alkylsulfonyl group, a substituted or unsubstituted phenyl group, or a substituted or unsubstituted benzyl group; and  $R^5$  is a hydrogen atom a lower alkyl group or a phenyl group;

$R^2$  is a substituted or unsubstituted phenyl group; a substituted or unsubstituted arylalkyl group; a cinnamyl group; a lower alkyl group; a pyridylmethyl group; a cycloalkylalkyl group; an adamantanemethyl group; or a furylmethyl group; and

----- is a single bond or a double bond.

45. (Previously Presented) The method of claim 44, wherein the compound of Formula (II) is a compound of Formula (III) or a pharmaceutically acceptable salt thereof:



or a stereoisomer thereof;

wherein r is an integer of 1 to 10; each  $R^{22}$  is independently hydrogen or methyl; K is a phenalkyl or a phenalkyl having a substituent on the phenyl ring; each S is independently a

hydrogen, a lower alkyl group having 1 to 6 carbon atoms or a lower alkoxy group having 1 to 6 carbon atoms; t is an integer of 1 to 4; q is an integer of 1 to 3; with the proviso that (S)<sub>t</sub> can be a methylenedioxy group or an ethylenedioxy group joined to two adjacent carbon atoms of the phenyl ring.